



<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)		Application Number	10/602,548
		Filing Date	June 23, 2003
		First Named Inventor	Tang, Hongxing
		Art Unit	2518
		Examiner Name	Unassigned
Total Number of Pages in This Submission		Attorney Docket Number	009195-000520US

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Firm or Individual	Townsend and Townsend and Crew LLP Gerald T. Gray Reg. No. 41,797
Signature	<i>Gerald T. Gray</i>
Date	January 5, 2004

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Signature	<i>Sylvia E. Arnold</i>	Date	January 5, 2004



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<b>POWER OF ATTORNEY OR AUTHORIZATION OF AGENT</b>	<b>Application Number</b>	10/602,548
	<b>Filing Date</b>	June 23, 2003
	<b>First Named Inventor</b>	Hongxing Tang et al.
	<b>Title</b>	SENSORS BASED ON GIANT PLANAR HALL EFFECT IN DILUTE MAGNETIC SEMICONDUCTORS
	<b>Art Unit</b>	2818
	<b>Examiner Name</b>	Unassigned
	<b>Attorney Docket Number</b>	009195-000520US

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Name	Registration Number

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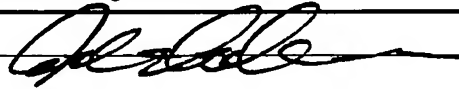
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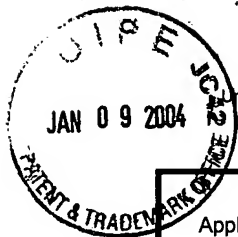
I am the:

☐ Applicant/Inventor.☒ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).**SIGNATURE of Applicant or Assignee of Record**

<b>Name</b>	Adam Cochran		
<b>Signature</b>	The Intellectual Property Counsel 		
<b>Date</b>	DEC 15 2003	<b>Telephone</b>	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/> *Total of      forms are submitted.			

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Hongxing Tang and Michael L. Roukes

Application No./Patent No.: 10/602,548

Filed/Issue Date: June 23, 2003

Entitled: SENSORS BASED ON GIANT PLANAR HALL EFFECT IN DILUTE MAGNETIC SEMICONDUCTORS

California Institute of Technology, a University

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To : \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To : \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

DEC 15 2003

Date

626-395-4567

Telephone number

Typed or printed name

Signature

**Adam Cochran**

**The Intellectual Property Counsel**

Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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## ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Hongxing Tang of 195 S. Wilson Avenue, #11, Pasadena, CA 91106 and Michael L. Roukes of 1420 San Pasqual, Pasadena, CA 91106 hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified application for United States Letters Patent:

Title of Invention:   SENSORS BASED ON GIANT PLANAR HALL  
EFFECT IN DILUTE MAGNETIC  
SEMICONDUCTORS

Date(s) of execution of Declaration:

Filing Date:           June 23, 2003

Application No.:       10/602,548; and

WHEREAS, California Institute of Technology, located at California Institute of Technology, 1201 East California Blvd., Mail Code 305-6, Pasadena, CA 91125, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignment


Attorney Docket No.: 009195-000520US

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Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including patent applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: 10/17/03

  
\_\_\_\_\_  
Hongxing Tang

Dated: 10/17/03

  
\_\_\_\_\_  
Michael L. Roukes

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